EE 206: Homework #2

Electrical Quantities, Kirchoff's Laws, Resistors in Series and Parallel. Due Wed, Jan 23
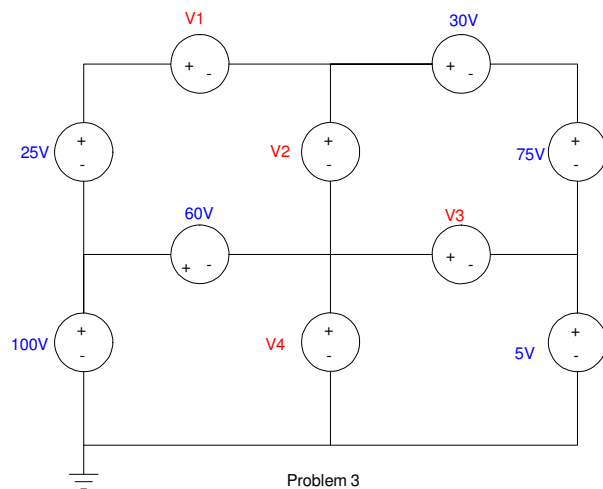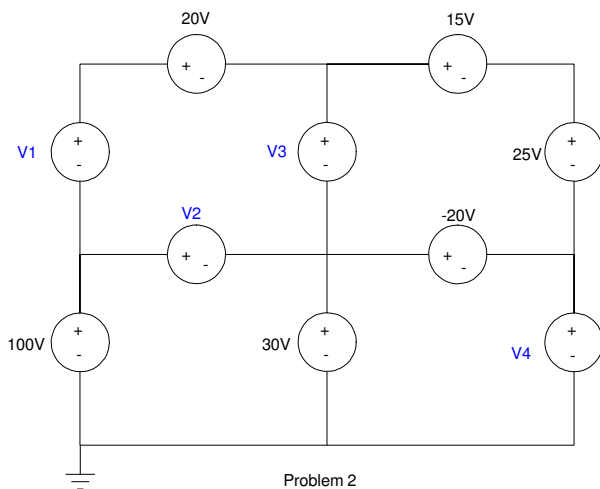
Electrical Quantities:

1) A resistor has the following volts / amps / resistance / power. Determine the missing parameters:

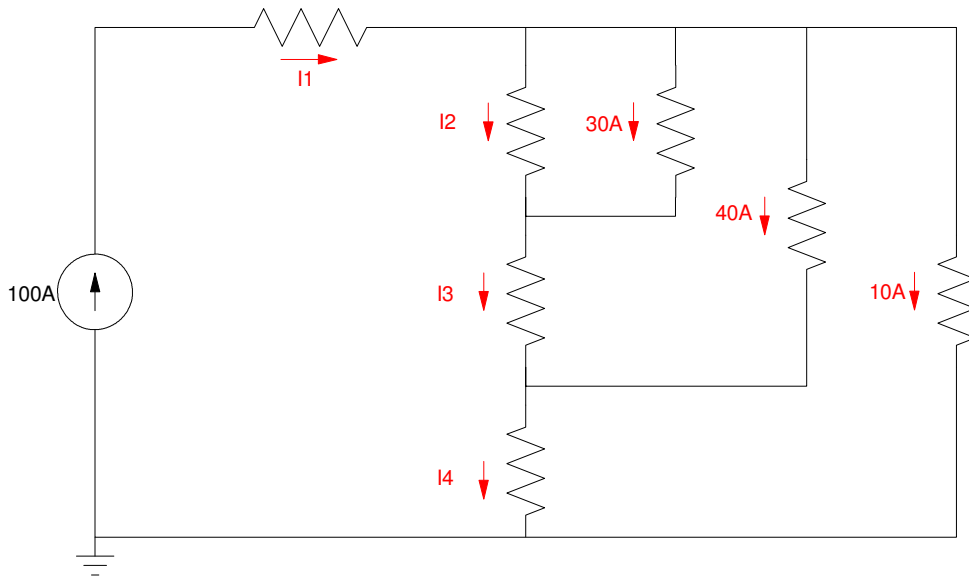| Volts	Amps	Ohms	Watts
5	10		
5		10	
	5		10
5			10

Kirchoff's Laws:

2) Use conservation of voltage to determine the unknown voltages

3) Use conservation of voltage to determine the unknown voltages
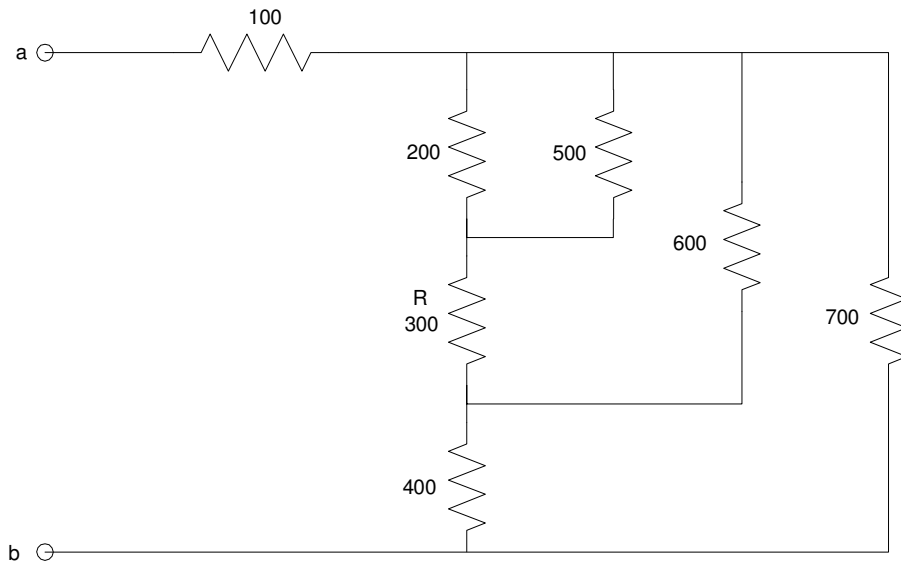

Problem 2 & 3

4) Use conservation of current to determine the unknown currents

5) Change the 100A source to 50A. Use conservation of current to determine the unknown currents. (note: some of the currents may be negative).

Problem 4 & 5

Resistors in Series and Parallel

6) Assume R = 300. Determine the total resistance, Rab

7) Assume the total resistance is Rab = 400 Ohms. Determine R.

Problem 6 & 7